LITERATURE SURVEY
EXPLORATORY ANALYSIS OF RAINFALL DATA IN INDIA FOR AGRICULTURE

- Xiaobo Zhang;Sachi Nandan Mohanty;Ajaya Kumar Parida;Subhendu Kumar Pani;Bin Dong;Xiaochun Cheng. **Annual and Non-Monsoon Rainfall Prediction Modelling Using SVR-MLP: An Empirical Study From Odisha. (IEEE)(2020)**
- Shilpa Manandhar;Soumyabrata Dev;Yee Hui Lee;Yu Song Meng;Stefan Winkler **A Data-Driven Approach for Accurate Rainfall Prediction.** (IEEE)(2019)
- Nana Kofi Ahoi Appiah-Badu;Yaw Marfo Missah;Leonard K. Amekudzi;Najim Ussiph;Twum Frimpong;Emmanuel Ahene **Rainfall Prediction Using Machine Learning Algorithms for the Various Ecological Zones of Ghana**.(IEEE)(2021)
- Deepali Patil Shree L.R.**Rainfall Prediction using Linear approach & Neural Networks and Crop Recommendation based on DecisionTree**.(IEEE)(2020)
- A. Haidar, B. Verma.**Monthly Rainfall Forecasting Using One-Dimensional Deep Convolutional Neural Network**(IEEE)

Problem Statement:

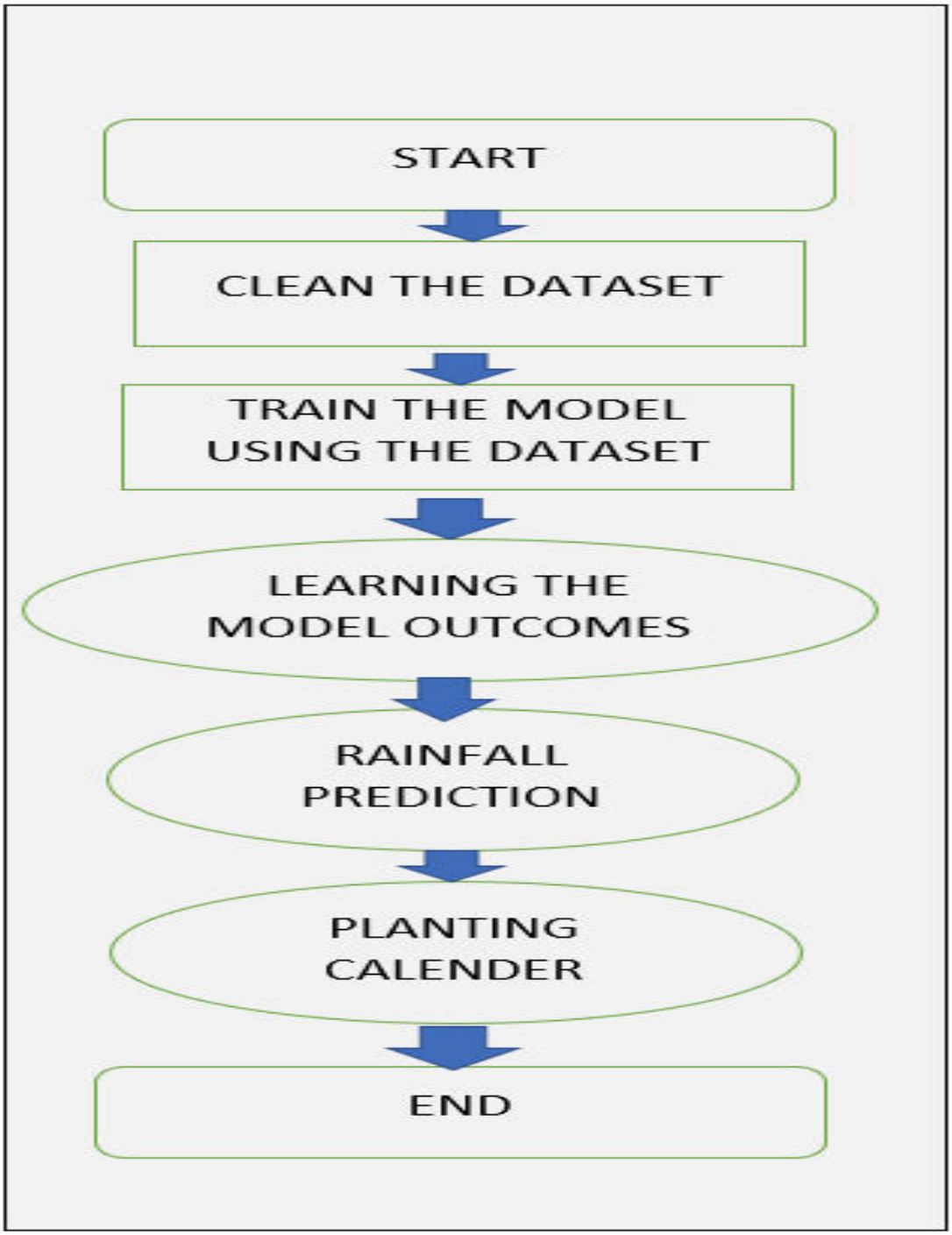
- Rainfall has been a major concern these days. Irregular heavy rainfall may lead to the destruction of crops, heavy floods that can cause harm to human life.
- It is important to exactly determine the rainfall for effective use of water resources, crop productivity, and pre-planning of water structures.

Objective:

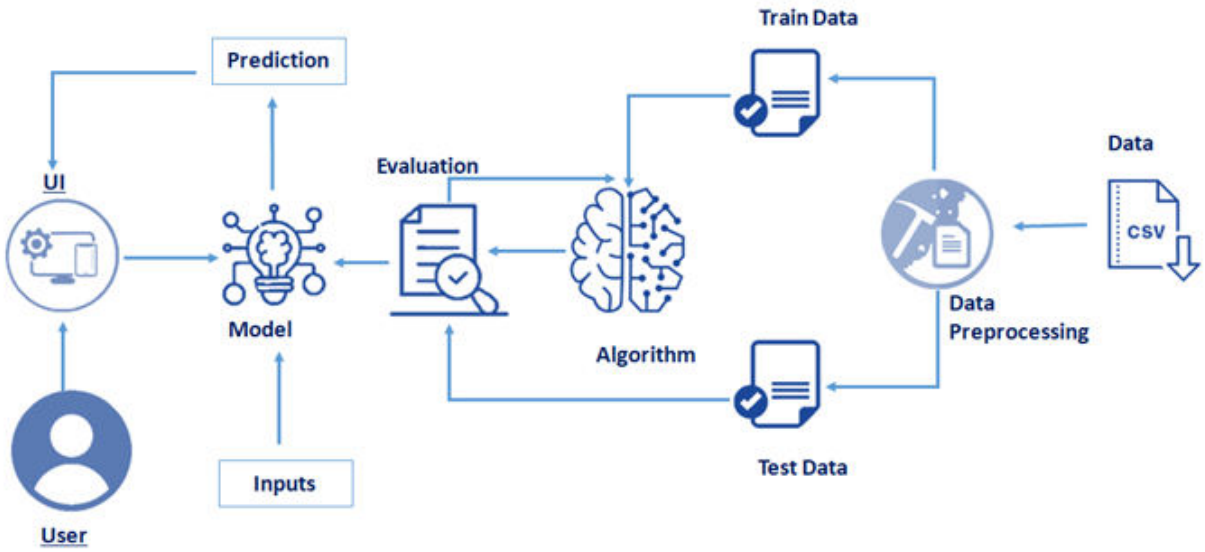
- We will be using classification algorithms such as Regression, Decision tree, Random forest, KNN, and xgboost. We will train and test the data with these algorithms.
- From this best model is selected and saved in pkl format.

- Once the model is saved, we integrate it with flask application and also deploy the model in IBM.

Work Plan



FLOW DIAGRAM TO TRAIN THE MODEL



Conclusion

- The dataset consist of measurement of the rainfall in various State's of India which ranges from January to December and also consist of overall annual rainfall for the respective States
- With the help of this dataset we can easily predict the upcoming rainfall measurement
- So that we can easily predict the agricultural status with the help of the rainfall measurement in the respective State's